CLEAN VERSION OF ALL PENDING CLAIMS

1. A method of derivatizing carriers or supports, wherein a functional group is activated on a carrier or support surface by reaction with an activating reagent and subsequently reacted with an amine component.

2. The method according to claim 1, wherein the supports are selected from the group consisting of glass, sheets or films or membranes made from polypropylene, nylon, cellulose, cellulose derivatives (e.g. cellulose acetate, cellulose-mixed ester), polyether sulfones, polyamides, polyvinyl chloride, polyvinylidene fluoride, polyester, polyethylene or Teflon.

3. The method according to claim 2, wherein the functional group is an amine, hydroxyl, phosphate, carboxyl, carbonyl, thiol or amide group.

4. The method according to claim 2, wherein the activating reagent is acryloylchloride, 4-nitrophenylchloroformate, carbonyl diimidazole, phenyl chloroformate, phosgene, disphosgene, triphosgene, EDC(N-(3-dimethylaminopropyl)-N'-ethyl-carbodiimide hydrochloride), N,N'-diisopropyl carbodiimide, dicyclohexyl carbodiimide, disuccinimidyl carbonate, disuccinimidyl oxalate, dimethylsuberimidate dihydrochloride or phenylene diisothiocyanate.

5. The method according to claim 1, wherein the amine component is selected from the group consisting of monoamines, bis-amines or polyamines.

6. The method according to claim 5, wherein the monoamine is 2-aminoethanol, 6-amino-1-hexanol, 2-(4-aminophenyl)ethanol, 5-amino-n-valeric acid, 2-(2-aminoethoxy)ethanol or 3-amino-1,2-propanediol.

7. The method according to claim 5, wherein the bis-amine is 1,4-bis(3-aminopropoxy)butane, O,O'-bis(2-aminopropyl)polyethylene glycol 500 (=

Jeffamine 500), O,O'-bis(2-aminopropyl)polyethylene glycol 130 (= Jeffamine 130), 4,7,10-trioxa-1,13-tridecaneamine or ethylene diamine.

8. The method according to claim 5, wherein the polyamine is tetraethylene pentamine, spermine, spermidine, 4,7,10-trioxa-1,13-tridecanediamine or 4-aminomethyl-1,8-octanediamine.

9. The method according to claim 1, wherein the steps of the reaction with an activating reagent and an amine component are carried out several times.

10. The method according to claim 9, wherein dendrimer structures are built up on the support surface.

11. The method according to claim 1, wherein a positive charge is built up in controlled fashion on the support surface.

12. The method according to claim 2, wherein the support surface derivatized according to claim 2 is additionally activated prior to the attachment of biopolymers.

13. The method according to claim 12, wherein said activating agent is disuccinimidyl carbonate, disuccinimidyl oxalate, glutaraldehyde, dimethylsuberimidate dihydrochloride or phenylene diisothiocyanate.

14. A support suitable for the attachment of biopolymers, wherein the surface of the support includes linkers having the following structure:

X = O, NHR_1

Y, Z = may be equal or different and be selected from

$-(CH_2)_n-$

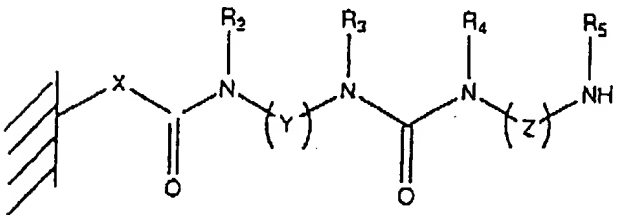
$-(CH_2CH_2O)_n-CH_2CH_2$

$-(CH_2CH_2CH_2O)_n-CH_2CH_2CH_2-$, etc.

R_1-R_5 = may be equal or different and be selected from a straight-chain or branched alkyl residue having 1 to 30 carbon atoms, straight-chain or branched alkenyl residue having 2 to 30 carbon atoms, monocyclic or polycyclic alkyl residue having 3 to 30 carbon atoms or monocyclic or polycyclic alkenyl residue having 4 to 30 carbon atoms or monocyclic or polycyclic residue having 6 to 30 carbon atoms, the residues being optionally substituted by one or several substituents (e.g. OH, carboxyl, carbonyl, phosphate)

n = 1 to 50

or



X = O, NHR_1

Y, Z = may be equal or different and be selected from

$-(CH_2)_n-$

$-(CH_2CH_2O)_n-CH_2CH_2$

$-(CH_2CH_2CH_2O)_n-CH_2CH_2CH_2-$, etc.

R_1-R_5 = may be equal or different and be selected from a straight-chain or branched alkyl residue having 1 to 30 carbon atoms, straight-chain or branched alkenyl residue having 2 to 30 carbon atoms, monocyclic or polycyclic alkyl residue having 3 to 30 carbon atoms or monocyclic or polycyclic alkenyl residue having 4 to

30 carbon atoms or monocyclic or polycyclic residue having 6 to 30 carbon atoms, the residues being optionally substituted by one or several substituents (e.g. OH, carboxyl, carbonyl, phosphate)

n = 1 to 50

15. A support suitable for the attachment of biopolymers, which includes linkers in the form of dendrimer structures on its surface.

17. The method according to claim 18 or 19, wherein the biopolymers are selected from the group consisting of DNA, RNA, nucleotide analogs, peptides, proteins or antibodies.

18. A method for attaching biopolymers to a support comprising the step of binding biopolymers to the support surface derivatized and activated according to claim 12.

19. A method for attaching biopolymers to a support comprising the step of binding biopolymers to the support surface derivatized and activated according to claim 14 or 15.